

PATENT

Our Docket: P-AR 4528

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of Klein et al.

Serial No.: 09/814,604

Filed: March 22, 2001

For: METHODS OF DETECTING DISSOCIATED NUCLEAR

HORMONE RECEPTOR LIGANDS

Commissioner for Patents Washington, D.C. 20231

Examiner: Unassigned

Group Art Unit: 1653

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C., 20231, on June 22, 2001.

By Andrea L. Gashler, Reg. No. 41,029

June 22, 2001 Date of Signature

INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with 37 C.F.R. § 1.97, enclosed are references relating to the above-identified application. For the convenience of the Examiner, these references are listed on the attached Form PTO-1449, and a copy of each is enclosed herewith.

It is respectfully requested that these references be considered in the examination of this application and that their consideration be made of written record in the application file.

No fee is deemed necessary in connection with the filing of this Information Disclosure Statement. However, if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-0370.

Respectfully submitted,

Date: <u>June 22, 2001</u>

audua K. Hasuler

Andrea L. Gashler

Registration No.: 41,029 Telephone: (858) 535-9001 Facsimile: (858) 535-8949

Campbell & Flores LLP 4370 La Jolla Village Drive 7th Floor San Diego, California 92122 USPTO CUSTOMER NO. 23601

<i>I</i> 1		SERIAL NO. = 09/814,604
and Trademark Office	APPLICANT: Klein et al.	TER 16
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE: March 22, 2001	GROUP: 200 200 200 200 200 200 200 200 200 20

U.S. PATENT DOCUMENTS

EXAM. INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE

FOREIGN PATENT DOCUMENTS

EXAM. INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION (YES/NO)

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages)

K	Anzick et al., "AIB1, a steroid receptor coactivator amplified in breast and ovarian cancer," <u>Science</u> 277:965-968 (1997)
	Barroso et al., "Dominant negative mutations in human PPARy associated with severe insulin resistance, diabetes mellitus and hypertension," Nature 402:880-883 (1999)
9	Berger et al., "A PPARy mutant serves as a dominant negative inhibitor of PPAR signaling and is localized in the nucleus," Mol. Cell. Endocrin. 162:57-67 (2000)
X	Blanco et al., "The histone acetylase PCAF is a nuclear receptor coactivator," Genes Devel. 12:1638-1651 (1998)
	Chakravarti et al., "Role of CBP/P300 in nuclear receptor signaling," Nature 383:99-103 (1996)
	Chen and Evans, "A transcriptional co-repressor that interacts with nuclear hormone receptors," Nature 377:454-457 (1995)

EXAMINER .	DATE CONSIDERED
	11.25-02

US Department of Commerce Patent and Trademark Office

ATTY DOCKET NO: P-AR 4528

SERIAL NO. 09/814,604

NTER (600/2900

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

FILING DATE: March 22, 2001

APPLICANT:

Klein et al.

GROUP:

1653

Chen et al., "RAR-specific agonist/antagonists which dissociate transactivation and AP1 transrepression inhibit anchorage-independent cell proliferation," <u>EMBO J.</u> 14:1187-97 (1995) Chen et al., "Regulation of hormone-induced histone hyperacetylation and gene activation via acetylation of an acetylase," Cell 98:675-686 (1999) Enmark et al., "Orphan nuclear receptors -- the first eight years," Mol. Endocrinol. 10:1293-1307 (1996) Fanjul et al., "A new class of retinoids with selective inhibition of AP-1 inhibits proliferation" Nature 372:107-111 (1994) Feng et al., "Suprabasal expression of a dominant-negative RXR α mutant in transgenic mouse epidermis impairs regulation of gene transcription and basal keratinocyte proliferation by RAR-selective retinoids," Genes Dev. 11:59-71 (1997) Glass and Rosenfeld, "The coregulator exchange in transcriptional functions of nuclear receptors," Genes Dev. 14:121-141 (2000) Gurnell et al., "A dominant-negative peroxisome proliferator-activated receptor gamma (PPARy) mutant is a constitutive repressor and inhibits PPARγ-mediated adipogenesis," J. Biol. Chem. 275:5754-5759 (2000) Horlein et al., "Ligand-independent repression by the thyroid hormone receptor mediated by a nuclear receptor co-repressor," Nature 277:397-404 (1995)Hu and Lazar, "The CoRNR motif controls the recruitment of corepressors by nuclear hormone receptors," Nature 402:93-96 (1999) Klein et al., "Recruitment of nuclear receptor corepressor and coactivator to the retinoic acid receptor by retinoid ligands. Influence

EXAMINER	DATE CONSIDERED //- 250

of DNA-heterodimer interactions," J. Biol. Chem. 275:19401-19408 (2000)

Page 3 of 5

Form Pfo 1449	Commerce Patent	ATTY DOCKET NO: P-AR 4528	SERIAL NO. 09/814,604
and Trademark Office	APPLICANT: Klein et al.		
INFORMATION DI STATEMENT BY A		FILING DATE: March 22, 2001	GROUP: 1653

1	Klein et al., "Identification and Functional Separation of Retinoic Acid Receptor Neutral Antagonists and Inverse Agonists," J. Biol. Chem. 271:22692-22696 (1996)
2	Kodera et al., "Ligand type-specific Interactions of Peroxisome Proliferator-activated Receptor γ with Transcriptional Coactivators," <u>J. Biol. Chem.</u> 275:33201-33204 (2000)
J	Korzus et al., "Transcription factor-specific requirements for coactivators and their acetyltransferase functions," Science 279:703-707 (1998)
8	Kumar et al., "The structure of the nuclear hormone receptors" <u>Steroids</u> 64:310-319 (1999)
8	Kurokawa et al., "Polarity-specific activities of retinoic acid receptors determined by a co-repressor," Nature 377:451-454 (1995)
8	Kurokawa et al., "Regulation of retinoid signalling by receptor polarity and allosteric control of ligand binding," Nature 371:528-531 (1994)
7	Lavinsky et al., "Diverse signaling pathways modulate nuclear receptor recruitment of N-CoR and SMRT complexes," Proc. Natl. Acad. Sci. 95:2920-2925 (1998)
9	Lin et al., "Acquisition of oncogenic potential by RAR chimeras in acute promyelocytic leukemia through formation of homodimers," Mol. Cell 5:821-30 (2000)
\mathcal{C}	Mangelsdorf et al., "The nuclear receptor superfamily: the second decade," Cell 83:835-839 (1995)
2	McInerney et al., "Determinants of coactivator LXXLL motif specificity in nuclear receptor transcriptional activation," Genes Dev. 12:3357-3368 (1998)

EXAMINER		DATE CONSIDERED /1/25-02
 	· · · · · · · · · · · · · · · · · · ·	

Page 4 of 5

	ATTY DOCKET NO: SERIAL NO. 09/814,604	
and Trademark Office	APPLICANT: Klein et al.	
INTERMEDIATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE: March 22, 2001	GROUP: 1653

g	Mouchon et al., "Allosteric regulation of the discriminative responsiveness of retinoic acid receptor to natural and synthetic ligand by retinoid X receptor and DNA," Mol. Cell. Biol. 19:3073-3085 (1999)
	Nagpal and Chandraratna "Retinoids as Anti-Cancer Agents," <u>Current Pharm Design</u> 2:295-316 (1996)
9	Nagpal et al., "Separation of transactivation and AP1 antagonism functions of retinoic acid receptor alpha," <u>J. Biol. Chem.</u> 270:923-927 (1995)
9	Nagy et al., "Mechanism of corepressor binding and release from nuclear hormone receptors," <u>Genes Dev.</u> 13:3209-3216 (1999)
9	Onate et al., "Sequence and characterization of a coactivator for the steroid hormone receptor superfamily," <u>Science</u> 270:1354-1357 (1995)
8	Perissi et al., "Molecular determinants of nuclear receptor-corepressor interaction," <u>Genes Devel.</u> 13:3198-3208 (1999)
9	Rachez et al., "Ligand-dependent transcription activation by nuclear receptors requires the DRIP complex," Nature 398:824-828 (1999)
9	Safer et al., "Defective release of corepressor by hinge mutants of the thyroid hormone receptor found in patients with resistance to thyroid hormone," J. Biol. Chem. 273:30175-82 (1998)
7	Spencer et al., "Steroid receptor coactivator-1 is a histone acetyltransferase," <u>Nature</u> 389:194-198 (1997)
9	Thacher et al., "Therapeutic Applications for Ligands of Retinoid Receptors," Current Pharm. Design 6:25-58 (2000)
y	Vanden Berghe et al., "Dissociated glucocorticoids with anti-inflammatory potential repress interleukin-6 gene expression by a nuclear factor-kB-dependent mechanism," Mol. Pharmacol. 56:797-806 (1999)

EXAMINER	$\Omega \subset \Omega$	DATE CONSIDERED
		112 5-02

1 / B'		SERIAL NO. 5
and Trademark Office	APPLICANT: Klein et al.	09/814,604
INFORMATHON DISCLOSURE STATEMENT BY APPLICANT	FILING DATE: March 22, 2001	GROUP: 1653

1	Wagner et al., "The novel progesterone receptor antagonists RTI 3021-012 and RTI 3021-022 exhibit complex glucocorticoid receptor antagonist activities: implications for the development of dissociated antiprogestins" Endocrinology 140:1449-58 (1999)	
9	Whitfield et al., "Steroid Hormone Receptors: Evolution, Ligands and Molecular Basis of Biologic Function," <u>J. Cell. Biochem. Suppl.</u> 32/33:110-122 (1999)	
	Xu et al., "Coactivator and corepressor complexes in nuclear receptor function," Curr. Opin. Genetics and Dev. 9:140-147 (1999)	
8	Zhang et al., "A novel role for helix 12 of retinoid X receptor in regulating repression," Mol. Cell Biol. 9:6448-57 (1999)	
J. Contract of the second of t	Zhu et al., "Isolation and characterization of PBP, a protein that interacts with peroxisome proliferator-activated receptor," J. Biol. Chem. 272:25500-25506 (1997)	

EXAMINER	M	DATE CONSIDERED